MAASAI MARA UNIVERSITY

2018/2019ACADEMIC YEAR

SECOND SEMESTER

EXAMINATION FOR THE FIRST YEAR SECOND SEMESTER BACHELOR OF SCIENCE IN INFORMATION SCIENCES

COURSE CODE: INS 1204

COURSE TITLE: PROCEDURAL PROGRAMMING

DATE : 26TH APRIL 2019 **TIME: 8.30- 10.30 AM**

INSTRUCTIONS:
SECTION A IS COMPULSORY ATTEMPT TWO QUESTIONS IN SECTION B

QUESTION ONE (30 MARKS)

a. Define the following terms as used in programming (4 marks)

i. Linker
ii. Compiler
iii. Interpreter
iv. Assembler

b. Write a program to add all integers from 1 to 100 (6 marks)

c. Write a program to find gross salary of an employee (5 marks)

d. Write a program to find the greatest number in 3 numbers (5 marks)

QUESTION TWO (20 MARKS)

a) What is the output of the following? (2 marks)

```
for (i=0;i<4;i++)
{ for (j=2;j<5;j++)
 {if (j==2)
 break;
 if (i==1)
 continue;
 printf("i=%d j=%d",I,j);
 }
}
```

b) Write a program that uses loops to produce the following: (5 marks)

2	4	6	8	10
3	6	9	12	15
4	8	12	16	20
5	10	15	20	25

c) Write a program that uses an *if* statement with logical OR to validate the users input to be in the range 1-10 (5 marks)

d. Define an interpreter and explain the difference between a compiler and an interpreter. (4 marks)

a) Using qualifiers write a program to show the sizeof
   i. Short int
   ii. Int
   iii. Long int (4 marks)

QUESTION THREE (20 MARKS)

a. Write a program to print the following stars Sequence (5 marks)

```
*
**
***
****
*****
```

b. Write a program to print Fibonacci series up to 100 (5 marks)

c. Write a Program to find factorial of a number (5 marks)

d. Define an operator and using examples explain the following operators. (5 marks)

i. Bitwise operator
ii. Comma operator
iii. Logical operator
iv. Relational operator

QUESTION FOUR (20 MARKS)

a. Write a program to use bitwise AND operator between the two integers. (5 marks)

b. Program to display series and find sum of 1+3+5+…+n. (5 marks)

c. Write a program to display the first 10 multiples of 5 on a single line (5 marks)

d. Program to show sum of 10 elements of array & show the average (5 marks)

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